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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,418	05/30/2001	Michael K. Blackwell	CKB-001.02	8017

25181 . 7590 02/23/2006

FOLEY HOAG, LLP
PATENT GROUP, WORLD TRADE CENTER WEST
155 SEAPORT BLVD
BOSTON, MA 02110

EXAMINER

SHECHTMAN, SEAN P

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/870,418	Applicant(s) BLACKWELL ET AL.	
	Examiner Sean P. Shechtman	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6,8,11-13,17-20,30,33,36,37,42,45-50,54,55,57,60 and 61 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,8,11-13,17-20,30,33,36,37,42,45-50,54,55,57,60 and 61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/7/05: 8/11/05</u> | 6) <input checked="" type="checkbox"/> Other: <u>IDS filed 1/9/06</u> |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 4,9,10,14-16,21-29,32,35,38,41,43,51-53,56,58,59 and 63-67.

DETAILED ACTION

1. Claims 1, 2, 5, 6, 8, 11-13, 17-20, 30, 33, 36, 37, 42, 45-50, 54, 55, 57, 60, 61 are presented for examination. Claims 4, 9, 10, 14-16, 21-29, 32, 35, 38, 41, 43, 51-53, 56, 58, 59, 63-67, are withdrawn. Claims 1, 2, 5, 8, 11-13, 20, 30, 33, 37, 42, 45-50, 55, 57, have been amended. Claims 3, 7, 31, 34, 39-40, 44, 62, 68-84 have been cancelled.

Election/Restrictions

2. Applicant's election with traverse of Group I, Species A in the reply filed on November 25th 2005 is acknowledged. The traversal is on the ground(s) that the subject matter presently claimed already has been examined substantively by the examiner. This is not found persuasive because the amendment filed August 11th 2005 completely changed the scope of the claims and/or added new claim limitations.

The requirement is still deemed proper and is therefore made FINAL.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, a lighting program defining a sequence of states for the plurality of lights and a lighting program transferred in a data format having a plurality of frames, each one of the plurality of frames corresponding to one state in the sequence of states for the plurality of lights, and the lighting program being stored by storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights; a lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights; a lighting program is a first lighting program, and wherein the computer readable medium is further

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encoded with a second lighting program that, when executed, controls the plurality of lights; a lighting program includes data to control at least one non-light device in addition to the plurality of lights, a non-light controlled device; a new effect; changing an effect to a new effect; changing speed; a "display-less" device; act (B) is performed before the act (A) and the acts of all those elements above required by the claim language must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The examiner has provided a number of examples of the drawing deficiencies above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the drawing objections.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 2, 5, 6, 8, 11-13, 17-20, 37, 42, 45-50, 54, 55, 57, 60, 61 are rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the final data stream represented by the plurality of frames" in lines 14-15. There is insufficient antecedent basis for this limitation in the claim.

Claim 37 recites the limitation "the final data stream represented by the plurality of frames" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1, 2, 5, 6, 8, 11-13, 17-20, 30, 33, 36, 37, 42, 45-50, 54, 55, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,466,234 to Pyle (Supplied by applicant).

Referring to claims 1, 30, 37, Pyle teaches a method, system, apparatus, computer readable medium for executing a lighting program to control a plurality of lights, the lighting program defining a sequence of states for the plurality of lights (Whole Document), comprising: transferring the lighting program from a device on which the lighting program was created to a computer readable medium and storing the lighting program on the computer readable medium, the lighting program being transferred in a data format having a plurality of frames (See Fig. 6, Col. 5, lines 46 – Col. 6, lines 39), each one of the plurality of frames corresponding to a state in

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the sequence of states for the plurality of lights, and the lighting program being stored by storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights (Col. 4, lines 10-29); coupling the computer readable medium to a device; coupling the device to the plurality of lights (See Fig. 6, Col. 5, lines 46 – Col. 6, lines 39); and executing the lighting program on the device by reading the plurality of frames from the computer readable medium and passing the final data stream represented by the plurality of frames to the plurality of lights to control the plurality of lights to execute the sequence (Col. 4, lines 10-29).

Referring to claims 2, 5, 6, 8, 11-13, 17-20, 42, 45-50, 54, 55, Pyle teaches a computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights, transferring the programs via a communications channel between various computers and mediums and switching scenes and transition times and effects (Col. 5, lines 14-45). Referring to claim 33, Pyle teaches the computer readable medium of claim 30, wherein the lighting program is a first lighting program, and wherein the computer readable medium is further encoded with a second lighting program that, when executed, controls the plurality of lights (Col. 5, lines 46- Col. 6, line 38). Referring to claim 36, Pyle teaches the computer readable medium of claim 30, wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 1, lines 40-41).

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7. Claims 1, 2, 5, 6, 8, 11-13, 17-20, 30, 33, 36, 37, 42, 45-50, 54, 55, rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 5,945,993 to Fleischmann (Supplied by applicant).

Referring to claims 1, 30, 37, Fleischmann teaches a method, system, apparatus, computer readable medium for executing a lighting program to control a plurality of lights, the lighting program defining a sequence of states for the plurality of lights (Whole Document), comprising: transferring the lighting program from a device on which the lighting program was created to a computer readable medium and storing the lighting program on the computer readable medium, the lighting program being transferred in a data format having a plurality of frames (Col. 3, lines 7-50), each one of the plurality of frames corresponding to a state in the sequence of states for the plurality of lights, and the lighting program being stored by storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights (Fig. 2, elements 66, 68a-68d; Col. 4, lines 33-52; Col. 5, lines 24-30); coupling the computer readable medium to a device; coupling the device to the plurality of lights (See Fig. 1; Col. 2, line 61 – Col. 3, line 6); and executing the lighting program on the device by reading the plurality of frames from the computer readable medium and passing the final data stream represented by the plurality of frames to the plurality of lights to control the plurality of lights to execute the sequence (Fig. 2, elements 66, 68a-68d; Col. 4, lines 33-52; Col. 5, lines 24-30).

Referring to claims 2, 5, 6, 8, 11-13, 17-20, 42, 45-50, 54, 55, Fleischmann teaches a computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program

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being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights (Fig. 2, elements 66, 68a-68d; Col. 4, lines 33-52; Col. 5, lines 24-30), transferring the programs via a communications channel between various computers and mediums and switching lighting (Col. 2, lines 50-60). Referring to claim 33, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program is a first lighting program, and wherein the computer readable medium is further encoded with a second lighting program that, when executed, controls the plurality of lights (Col. 4, lines 53-67; Fig. 2). Referring to claim 36, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 11, lines 18-23).

8. Claims 30, 33, 36 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,769,527 to Taylor (supplied by applicant).

Referring to claims 30, 33, 36, Taylor teaches a computer readable medium encoded with a lighting program (Whole Document) that, when executed, controls a plurality of lights and defines a sequence of states for the plurality of lights, the lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights, the data format having a plurality of frames, each one of the plurality of frames corresponding to a state in the sequence of states for the plurality of lights, the lighting program being stored by storing a specific frame for each of the states, the data format representing a final data stream capable of directly controlling the plurality of lights to execute the sequence (Col. 48, lines 25-36); wherein the lighting program is encoded in a data format having an entry in the

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lighting program corresponding to every one of the plurality of states for the plurality of lights; wherein the lighting program is encoded in a data format; wherein the medium is further encoded with another lighting program that, when executed, controls the plurality of lights; wherein the second lighting program is encoded in a data format that represents a second final data stream capable of directly controlling the plurality of lights (Col. 49, lines 9-21); wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 50, lines 54-64).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 57, 60, 61, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No 5,945,993 to Fleischmann or U.S. Pat. No. 6,466,234 to Pyle as applied to the claims above, and further in view of U.S. Pat. No. 5,769,527 to Taylor.

Referring to claims 57, 60, 61, Fleishmann and Pyle teaches all of the limitation disclosed above, however, fails to teach the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table.

However, referring to claims 57, 60, 61, Taylor teaches analogous art, wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table (Col. 5, lines 36 – Col. 6, line 17).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann or Pyle with the teachings of Taylor. One of ordinary skill in the art would have been motivated to combine these references because Taylor teaches lighting systems having intelligent remote lighting fixtures and intelligent distribution networks (Col. 1, lines 26-30) that can coordinate communications between control devices and lamp units having diverse communications protocols, functions, and data formats (Col. 2, lines 5-24).

Response to Arguments

10. Applicant's arguments filed August 11th 2005 have been fully considered but they are not persuasive.

Regarding the drawings, the examiner respectfully invites applicant's attention to 37

C.F.R. 1.83(a) which clearly states:

"(a) The drawing in a nonprovisional application must show every feature of the invention specified in the claims. However, conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box)."

The objections to the drawings are maintained because the examiner believes that the drawings, as such, do not show every feature of the invention specified in the claims. Applicant argument that the features are taught in the specification is not found persuasive because the drawings must show every feature of the invention specified in the claims. Applicant argues that acts (A) and (B) are illustrated by arrows and that the arrows do not restrict the order of acts. This argument is not found persuasive because the drawings must show every feature of the

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invention specified in the claims. Furthermore, the instant specification does not teach that the arrows do not restrict the order of acts.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a controller that executes the lighting program for each state in the sequence) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Pyle fails to teach a lighting program defining a sequence of states for the plurality of lights. The examiner respectfully disagrees. The instant specification teaches the term "sequence" refers to two or more lighting effects spaced in time. The instant specification teaches an effect may contain one or more states, so that the effect can retain information over the course of time. Pyle clearly teaches "each scene also has an associated change time that indicates the time that it will take to transition the lights from their current state to their target state" (Col. 5, lines 7-10). The examiner submits that each scene that has an associated change time that indicates the time that it will take to transition the lights from their current state to their target state is a lighting program defining a sequence of states for the plurality of lights.

Applicant argues that Fleischmann fails to teach a lighting program defining a sequence of states for the plurality of lights. The examiner respectfully disagrees. The instant specification teaches the term "sequence" refers to two or more lighting effects spaced in time. The instant specification teaches an effect may contain one or more states, so that the effect can

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retain information over the course of time. Fleischmann clearly teaches the computer schedules the times at which the lighting loads are turned on or off (Col. 1, lines 10-20; Col. 9, lines 18-34). The examiner submits that computer that schedules the times at which the lighting loads are turned on or off is a lighting program defining a sequence of states for the plurality of lights.

Applicant argues that Taylor fails to teach a lighting program that defines a sequence of states in a data format that represents a final data stream capable of directly controlling the plurality of lights, the data format having a plurality of frames, wherein each frame corresponds to one state in the sequence and wherein encoding the computer includes storing a specific frame for each of the states that represents a final data stream capable of directly controlling the plurality of lights to execute the sequence. The examiner respectfully disagrees. The instant specification teaches formats that can be used for controlling a plurality of lighting units include data streams in data formats such as DMX, RS-485, RS-232. Taylor teaches RS232 data format (Col. 48, lines 25-44). The examiner submits that the RS232 data format that Taylor teaches is a lighting program that defines a sequence of states in a data format that represents a final data stream capable of directly controlling the plurality of lights, the data format having a plurality of frames, wherein each frame corresponds to one state in the sequence and wherein encoding the computer includes storing a specific frame for each of the states that represents a final data stream capable of directly controlling the plurality of lights to execute the sequence.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/870,418

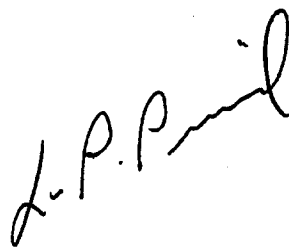
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SPS

Sean P. Shechtman

February 20, 2006

A handwritten signature in black ink, appearing to read "L. P. Picard", written diagonally across the page.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100



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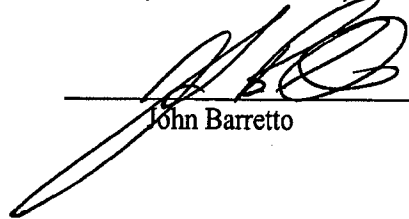
PATENTS
Serial No. 09/870,418
Confirmation No. 8017
Attorney Docket No. CKB-001.02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
Blackwell et al.)	
Application No:)	Art Unit: 2125
09/870,418)	
Filed: May 30, 2001)	Confirmation No.: 8017
For: A METHOD AND APPARATUS)	Examiner: Sean P. Shechtman
FOR AUTHORIZING AND PLAYING)	
BACK LIGHTING SEQUENCES)	

CERTIFICATE OF MAILING

I hereby certify that the following paper is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on November 22, 2005.


John Barretto

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE TO RESTRICTION REQUIREMENT/ELECTION

In response to the Restriction Requirement mailed November 1, 2005 in the above-identified application, Applicants elect Group I, claims 1, 2, 5, 6, 8-29, 30, 33, 35, 36, 37, 38, 42, 43, and 45-61, for further prosecution. Within Group I, Applicants elect Species A, on which claims 8, 11-13, 45-50 and 57 are believed to read.

The above election of the Group I, Species A claims is made with traverse to the Restriction Requirement. The Applicants respectfully submit that search and examination of all of the claims pending in the present application can be made without serious burden on

the Examiner, as already demonstrated in a previous substantive Office Action on the merits.

Specifically, the Examiner has already demonstrated that search and examination of the subject matter of all of the claims presently pending in the application can be made without serious burden, as **the subject matter presently claimed already has been examined substantively by the Examiner in a previous Office Action dated February 9, 2005.** While some minor amendments to the claims have been made during prosecution, the overall subject matter covered by the claims essentially has not changed from the claims as originally filed.

For example, the subject matter of claims 4, 32, and 41, which the Examiner now assigns to the Group II claims as being “drawn to a final data stream to control lights without interpolating any of the data included therein,” was searched, examined and substantively commented upon by the Examiner in the February 9, 2005 Office Action as indicated at least on: page 7, paragraph 9; page 10, paragraph 10; and page 11, paragraph 11 of the Office Action. Similarly, in the February 9, 2005 Office Action, the Examiner already has searched, examined, and commented upon the subject matter of all of the other currently pending claims.

Hence, by the Examiner’s own prior substantive office action, the Examiner has conceded that search and examination of these claims can be made without a serious burden. According to MPEP §803, “if the search and examination of an entire application can be made without serious burden, the examiner **must** examine it on the merits” (emphasis added). For at least this reason, the Restriction Requirement is improper and should be withdrawn.

In sum, Applicants have distinctly and specifically pointed out what are respectfully believed to be errors in this Restriction Requirement, and hence traverse this requirement. In doing so, Applicants retain the right to petition from the requirement under 37 C.F.R. §1.144.


Applicants respectfully request the Examiner to reconsider and withdraw the Restriction Requirement and proceed with prosecution on the merits of all of the pending claims.

Should the Examiner maintain the Restriction Requirement, Applicants expressly reserve the right to prosecute groups not elected herein in other patent applications claiming the benefit of the filing date of this application. Furthermore, the Applicants understand that upon allowance of a generic claim, they will be entitled to consideration of claims to additional groups which are written in dependent form or otherwise include all the limitations of any allowed generic claims.

Any questions raised by this submission may be directed to the undersigned at (617) 832-1000. The Commissioner is hereby authorized to charge any underpayments, or credit any overpayments, to our **Deposit Account No. 06-1448, Reference CKB-001.02.**

Respectfully submitted,

Date: November 22, 2005
Customer No: 25181
Patent Group
Foley Hoag, LLP
155 Seaport Blvd.
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25181 7590 11/01/2005

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09/870,418

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Examiner

Sean P. Shechtman

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- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
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Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8-30,32,33,35-38,41-43,45-61 and 63-67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) See Continuation Sheet are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 2, 5, 6, 8-29, 30, 33, 35, 36, 37, 38, 42, 43, 45-61, drawn to a lighting program defining a sequence of states being transferred in a data format having a plurality of frames corresponding to states in the sequence of states for a plurality of lights, classified in class 700, subclass 7.
- II. Claims 4, 32, 41, drawn to a final data stream to control lights without interpolating any of the data included therein, classified in class 700, subclass 86.
- III. Claims 63, 65, drawn to changing a parameter of an effect assigned in a lighting program including a sequence of commands for controlling a plurality of lights, in response to an external device, classified in class 700, subclass 23.
- IV. Claims 64, 66, drawn to changing a speed at which a lighting program including a sequence of commands for controlling a plurality of lights is executed, in response to an external device, classified in class 700, subclass 46.
- V. Claim 65, drawn to changing a lighting program based upon a cue table that interprets actions based on information received from an external device, classified in class 700, subclass 11.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be

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separately usable. In the instant case, invention I has separate utility such as controlling lights with interpolation of the data stream. See MPEP § 806.05(d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as simultaneously storing multiple lighting programs. See MPEP § 806.05(d).

Inventions I and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as simultaneously storing multiple lighting programs. See MPEP § 806.05(d).

Inventions I and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as simultaneously storing multiple lighting programs. See MPEP § 806.05(d).

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as controlling lights with interpolation of a data format of the lighting program. See MPEP § 806.05(d).

Inventions II and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as controlling lights with interpolation of a data format of the lighting program. See MPEP § 806.05(d).

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Inventions II and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as controlling lights with interpolation of a data format of the lighting program. See MPEP § 806.05(d).

Inventions III and IV are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as changing the color of light. See MPEP § 806.05(d).

Inventions III and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as changing the order of execution of the lights. See MPEP § 806.05(d).

Inventions IV and V are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention V has separate utility such as changing the order of execution of the lights. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II, III, IV, V, restriction for examination purposes as indicated is proper.

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Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Groups I, III, IV, V, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group III is not required for Groups I, II, IV, V, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group IV is not required for Groups I, II, III, V, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group V is not required for Groups I, II, III, IV, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention:

If applicant elects group I, the following species applies:

- a. Species A- input from an external device.
- b. Species B- input from a user.
- c. Species C- input from a sensor.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 5, 37, 42, generic.

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Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

A telephone call was made to Robert Gauthier on October 26, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

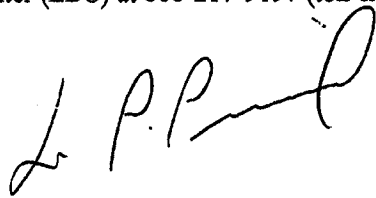
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

Sean P. Shechtman

October 26, 2005



LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,418	05/30/2001	Michael K. Blackwell	C01104/70001	8017

23628 7590 02/09/2005

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 600 ATLANTIC AVENUE
 BOSTON, MA 02210-2211

EXAMINER

SHECHTMAN, SEAN P

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/870,418

Applicant(s)

BLACKWELL ET AL.

Examiner

Sean P. Shechtman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/18/02; 10/24/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: IDS filed 9/13/04; 1/7/05.

DETAILED ACTION

1. Claims 1-84 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement filed January 18th 2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.
3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered. See page 1, line 22 of the instant specification.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the set-up interface displays a selected lighting effect as defined by a start time and a stop time associated therewith (claim 70); each lighting unit is associated with a unique address (claim 71); the plurality of lighting units include an LED lighting unit capable of emitting light of any of a range of different colors (claim 72); visually representing the a selected lighting effect on a region of the grid defined by the lighting unit, start time and stop time associated with the selected lighting effect (claim 74);

selecting a transitioning effect between a first and second lighting effect (claim 78); the sequence authoring module includes a prioritizing unit to permit a user to determine a priority for a first lighting effect which shares a temporal overlap with a second lighting effect (claim 79); the sequence authoring module includes an intensity unit to permit a user to determine a brightness for the selected lighting effect (claim 80); the sequence authoring module includes a motion unit to permit the user to determine a motion of a lighting unit (claim 82); a lighting effect creator to permit a user to design lighting effects using the sequence authoring module and to include the user-designed effects on the authoring interface (claim 83); a user composed lighting effect, a temporal overlap between lighting effects, a select region of a grid corresponding to a desired time, a desired time, a select start or stop time, an LED, lighting effects that are prioritized and/or share a temporal overlap; a lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights (claim 30); a lighting program is encoded in a data format having an entry in the lighting program corresponding to every one of the plurality of states for the plurality of lights (claim 31); a lighting program is encoded in a data format without any information necessary to interpolate any of the data included therein to determine a state for the plurality of lights (claim 32); a lighting program is a first lighting program, and wherein the computer readable medium is further encoded with a second lighting program that, when executed, controls the plurality of lights (claim 33); a second lighting program is encoded in a data format that represents a second final data stream capable of directly controlling the plurality of lights (claim 34); a lighting program includes at least one variable that, at execution time, is to be provided by a device to which the computer readable medium is coupled (claim 35), a lighting program with any variable; a lighting program includes

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data to control at least one non-light device in addition to the plurality of lights (claim 36), a non-light controlled device; switching execution of different programs; switching in response to a device, user, or sensor; a new effect; changing an effect to a new effect; changing speed; a "display-less" device; act (B) is performed before the act (A) and the acts of all those elements above required by the claim language must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. Although not relied upon in the objections, examiner respectfully notes the following:

Color photographs and color drawings are acceptable only for examination purposes unless a petition filed under 37 CFR 1.84(a)(2) is granted permitting their use as acceptable drawings. In the event that applicant wishes to use the drawings currently on file as acceptable

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drawings, a petition must be filed for acceptance of the color photographs or color drawings as acceptable drawings. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Color photographs will be accepted if the conditions for accepting color drawings have been satisfied.

6. The examiner has provided a number of examples of the drawing deficiencies above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the drawing objections.

Specification

7. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

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- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-16, 37-67 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Claims 11-16 recites the limitation "the first lighting program" in lines 1-2. Claim 37 recites the limitation "the computer readable medium" in line 7. Claims 63-64 recites the limitation "the computer readable medium" in line 17. Claims 65-66 recites the limitation "the computer readable medium" in line 7. Claim 65-66 recites the limitation "the received information" in line 12. Claim 67 recites the limitation "the computer readable medium" in line 10.
10. There is insufficient antecedent basis for these limitations in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

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patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 30-36 and 68-84 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Pat. No. 5,769,527 to Taylor (supplied by applicant).

Referring to claims 30-36, Taylor teaches a computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights (Col. 48, lines 25-36); wherein the lighting program is encoded in a data format having an entry in the lighting program corresponding to every one of the plurality of states for the plurality of lights; wherein the lighting program is encoded in a data format without any information necessary to interpolate any of the data included therein to determine a state for the plurality of lights; wherein the medium is further encoded with another lighting program that, when executed, controls the plurality of lights; wherein the second lighting program is encoded in a data format that represents a second final data stream capable of directly controlling the plurality of lights (Col. 49, lines 9-21); wherein the lighting program includes at least one variable that, at execution time, is to be provided by a device to which the computer readable medium is coupled (Col. 50, lines 1-9); wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 50, lines 54-64).

Referring to claims 68-84, Taylor teaches a system for preparing and playing back a light sequence, comprising an authoring interface displaying information representative of a plurality of lighting effects (Fig. 33); a sequence authoring module to permit a user to select a lighting

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effect (Fig. 33), a lighting unit to execute the lighting effect (Col. 50, lines 42-54), a start time for the lighting effect, and a stop time for the lighting effect and cue (Col. 63, lines 32 – Col. 64, line 38); and a playback device, coupled to the lighting unit, to playback the light sequence (Col. 61, lines 33-44), and also a visually display, storage medium, transitioning effect, brightness (Fig. 33).

10. Claims 1-26, 30-36, 37-56, 60, 62-67, 68, 69, 71, 75, 78, 80, 84, are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,466,234 to Pyle (Supplied by applicant).

Referring to claims 68 and 84, Pyle teaches a system for preparing and playing back a light sequence, comprising an authoring interface displaying information representative of a plurality of lighting effects (bright and dim); a sequence authoring module to permit a user to select a lighting effect (bright or dim or intensity), a lighting unit to execute the lighting effect (room lights), a start time for the lighting effect, and a stop time for the lighting effect (Col. 5, lines 14-45); and a playback device, coupled to the lighting unit, to playback the light sequence (Col. 9, lines 34-64, especially lines 61-64).

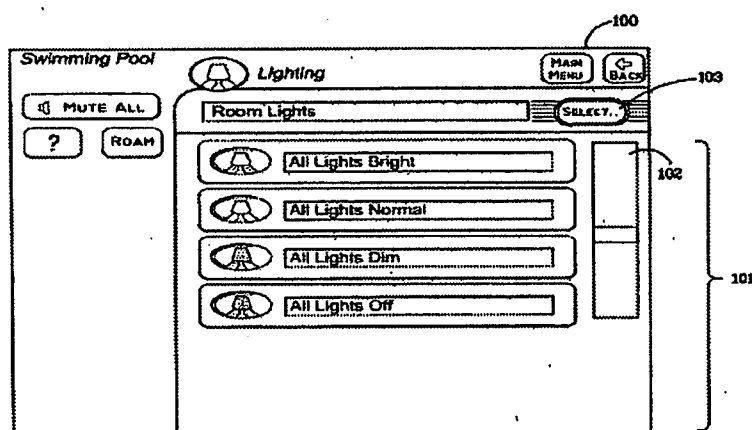


FIG. 1

Examiner respectfully notes that the instant specification teaches the term “light sequence” does not require sequential displays. In fact, the term “light sequence” only requires a controlled display with one light. The examiner respectfully submits that the lighting sequence is not required to be functionally related to or used with the authoring interface or sequence authoring interface.

Referring to claim 69, Pyle teaches the system of claim 68, further comprising a lighting set-up module to receive information representative of an arrangement of a plurality of lighting units, and a set-up interface to visually display the arrangement of the plurality of lighting units (See figure above).

Referring to claim 71, Pyle teaches the system of claim 69, wherein each lighting unit is associated with a unique address (Col. 5, lines 14 – Col. 6, line 39).

Referring to claim 75, Pyle teaches the system of claim 68, further comprising a recorder to store user selections on an electronic storage medium (Col. 5, lines 46-60).

Referring to claim 78, Pyle teaches the system of claim 68, wherein the sequence authoring module includes a transitioning unit to permit a user to select a transition effect for a transition between a first lighting effect and a second lighting effect (Col. 5, lines 14-45).

Referring to claim 80, Pyle teaches the system of claim 68, wherein the sequence authoring module includes an intensity unit to permit a user to determine a brightness for the selected lighting effect (Col. 4, lines 10-27).

Referring to claims 1-26, 30, 37-56, 60, 62-67, Pyle teaches a computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program being encoded in a data format

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that represents a final data stream capable of directly controlling the plurality of lights (Col. 4, lines 10-29), transferring the programs via a communications channel between various computers and mediums (Col. 5, lines 46 – Col. 6, lines 39) and switching scenes and transition times and brightness from input (Col. 5, lines 14-45).

Referring to claim 31, Pyle teaches the computer readable medium of claim 30, wherein the lighting program is encoded in a data format having an entry in the lighting program corresponding to every one of the plurality of states for the plurality of lights (See above figure).

Referring to claim 32, Pyle teaches the computer readable medium of claim 30, wherein the lighting program is encoded in a data format without any information necessary to interpolate any of the data included therein to determine a state for the plurality of lights (Col. 4, lines 10-29).

Referring to claim 33, Pyle teaches the computer readable medium of claim 30, wherein the lighting program is a first lighting program, and wherein the computer readable medium is further encoded with a second lighting program that, when executed, controls the plurality of lights (Col. 5, lines 46- Col. 6, line 38).

Referring to claim 34, Pyle teaches the computer readable medium of claim 33, wherein the second lighting program is encoded in a data format that represents a second final data stream capable of directly controlling the plurality of lights (Col. 5, lines 46- Col. 6, line 38).

Referring to claim 35, Pyle teaches the computer readable medium of claim 30, wherein the lighting program includes at least one variable that, at execution time, is to be provided by a device to which the computer readable medium is coupled (Col. 5, lines 1-7).

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Referring to claim 36, Pyle teaches the computer readable medium of claim 30, wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 1, lines 40-41).

11. Claims 1-26, 30-36, 37-56, 60, 62-67, 68, 69, 71, 75, 76, 80, 84, rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 5,945,993 to Fleischmann (Supplied by applicant).

Referring to claims 1-26, 30, 37-56, 60, 62-67, Fleischmann teaches a computer readable medium encoded with a lighting program that, when executed, controls a plurality of lights and defines a plurality of states for the plurality of lights, the lighting program being encoded in a data format that represents a final data stream capable of directly controlling the plurality of lights (Fig. 2, elements 66, 68a-68d; Col. 4, lines 33-52; Col. 5, lines 24-30), transferring the programs via a communications channel between various computers and mediums and switching lighting from input (Col. 2, lines 50-60).

Referring to claim 31, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program is encoded in a data format having an entry in the lighting program corresponding to every one of the plurality of states for the plurality of lights (Fig. 2, elements 66, 68a-68d; See also Col. 9, lines 36-47).

Referring to claim 32, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program is encoded in a data format without any information necessary to interpolate any of the data included therein to determine a state for the plurality of lights (Col. 5, lines 24-30).

Referring to claim 33, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program is a first lighting program, and wherein the computer readable medium is further encoded with a second lighting program that, when executed, controls the plurality of lights (Col. 4, lines 53-67; Fig. 2).

Referring to claim 34, Fleischmann teaches the computer readable medium of claim 33, wherein the second lighting program is encoded in a data format that represents a second final data stream capable of directly controlling the plurality of lights (Col. 5, lines 60 - Col. 6, line 61).

Referring to claim 35, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program includes at least one variable that, at execution time, is to be provided by a device to which the computer readable medium is coupled (Col. 3, line 66 – Col 4, line 12).

Referring to claim 36, Fleischmann teaches the computer readable medium of claim 30, wherein the lighting program includes data to control at least one non-light device in addition to the plurality of lights (Col. 11, lines 18-23).

Referring to claims 68 and 84, Fleischmann teaches a system for preparing and playing back a light sequence, comprising an authoring interface displaying information representative of a plurality of lighting effects (Fig. 2); a sequence authoring module to permit a user to select a lighting effect (Col. 5, lines 24-30), a lighting unit to execute the lighting effect, a start time for the lighting effect, and a stop time for the lighting effect (Col. 1, lines 11-15); and a playback device, coupled to the lighting unit, to playback the light sequence (Col. 1, lines 16-20).

Referring to claim 69, Fleischmann teaches the system of claim 68, further comprising a lighting set-up module to receive information representative of an arrangement of a plurality of lighting units, and a set-up interface to visually display the arrangement of the plurality of lighting units (See fig. 2).

Referring to claim 71, Fleischmann teaches the system of claim 69, wherein each lighting unit is associated with a unique address (Fig. 1a; Col. 3, lines 51-65; Col. 3, lines 13-26).

Referring to claim 75, Fleischmann teaches the system of claim 68, further comprising a recorder to store user selections on an electronic storage medium (Fig. 1, elements 82, 36, or 60).

Referring to claim 76, Fleischmann teaches the system of claim 68, wherein the sequence authoring module includes a coloring unit to permit a user to select a color for the selected lighting effect (Col. 9, lines 36-47).

Referring to claim 80, Fleischmann teaches the system of claim 68, wherein the sequence authoring module includes an intensity unit to permit a user to determine a brightness for the selected lighting effect (Fig. 2, elements 66, 68a-68d).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,466,234 to Pyle or U.S. Pat. No. 5,945,993 to Fleischmann as applied to claim 69 above, and further in view of U.S. Pat. No. 5,986,414 to Bocchicchio(supplied by applicant).

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Referring to claim 70, Pyle and Fleishmann teaches all of the limitation disclosed above, however, fails to teach that upon initiation of a playback function, the set-up interface displays a selected lighting effect as defined by a start time and a stop time associated therewith, on a portion thereof defined by a lighting unit associated with the selected lighting effect.

However, referring to claim 70, Bocchicchio teaches analogous art, wherein upon initiation of a playback function, the set-up interface displays a selected lighting effect as defined by a start time and a stop time associated therewith, on a portion thereof defined by a lighting unit associated with the selected lighting effect (Col. 7, line 42 - Col. 8, line 17 of '414).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann or Pyle with the teachings of Bocchicchio. One of ordinary skill in the art would have been motivated to combine either of these references because Bocchicchio teaches a flexible and easily configurable lighting system with a template for creating and editing a lighting program (Col. 2, lines 14 - Col. 3, line 8 of '414).

13. Claims 72, 82, and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No 5,945,993 to Fleischmann as applied to claims 68, 69 above, and further in view of U.S. Pat. No. 6,361,198 to Reed (supplied by applicant).

Referring to claims 72, 82, and 83, Fleishmann teaches all of the limitation disclosed above, however, fails to teach the plurality of lighting units include an LED lighting unit capable of emitting light of any of a range of different colors; wherein the sequence authoring module includes a motion unit to permit the user to determine a motion of a lighting unit; further

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comprising a lighting effect creator to permit a user to design lighting effects using the sequence authoring module and to include the user-designed effects on the authoring interface.

However, referring to claims 72, 82, and 83, Reed teaches analogous art (Title; Abstract of '198), wherein a plurality of lighting units include an LED lighting unit capable of emitting light of any of a range of different colors; further comprising a lighting effect creator to permit a user to design lighting effects using the sequence authoring module and to include the user-designed effects on the authoring interface (Col. 3, lines 25-57 of '198); wherein the sequence authoring module includes a motion unit to permit the user to determine a motion of a lighting unit (Col. 5, lines 1-7; Fig. 16 of '198).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of Reed with the teachings of Fleischmann. One of ordinary skill in the art would have been motivated to combine these references because Reed teaches an interactive light display that uses a computer to allow display routines to be conveniently custom designed and easily exchanged and even downloaded from the internet (Col. 2, lines 1-16 of '198)

14. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,945,993 to Fleischmann as applied to claim 68 above, and further in view of U.S. Pat. No. 5,334,992 to Rochat (supplied by applicant).

Referring to claim 77, Fleishmann teaches all of the limitation disclosed above, however, fails to teach the sequence authoring module includes a coloring unit to permit a user to select a starting color and an ending color for the selected lighting effect.

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However, referring to claim 77, Rochat teaches analogous art, including a starting color and an ending color for a lighting effect (Fig. 5; Col. 6, lines 45-60 of '992).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann with the teachings of Rochat. One of ordinary skill in the art would have been motivated to combine these references because Rochat teaches an improved system for controlling color of display devices and color selection. Furthermore, Rochat teaches an interface that enhances the ease of color selection and manipulation in a computer system by utilizing display graphics to assist in the visualization of the available color selections. Further advantages of Rochat generally apply to increased accuracy, predictability and ease of use of the interface (Col. 4, lines 13-68 of '992)

15. Claim 79 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5,945,993 to Fleischmann as applied to claim 68 above, and further in view of U.S. Pat. No. 5,739,823 to Akaza (supplied by applicant).

Referring to claim 79, Fleishmann teaches all of the limitation disclosed above, however, fails to teach the sequence authoring module includes a prioritizing unit to permit a user to determine a priority for a first lighting effect which shares a temporal overlap with a second lighting effect.

However, referring to claim 79, Akaza teaches analogous art, comprising permitting the user to specify a priority for a first lighting effect which shares a temporal overlap with a second lighting effect (Col. 9, lines 50-67 of '823).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann with the teachings of Akaza. One of ordinary skill in the art would have been motivated to combine these references because Akaza teaches a graphic display device for displaying graphs based on input data that can be clearly and easily discriminated (Col. 1, lines 5-7 and lines 55-56 of '823).

16. Claims 73-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No 5,945,993 to Fleischmann or Fleischmann/Reed as applied to claims 68 and 72 above, and further in view of U.S. Pat. No. 5,986,414 to Bocchicchio (supplied by applicant).

Referring to claim 73-74, Fleischmann or Fleischmann/Reed teaches all of the limitation disclosed above, however, fails to teach the authoring interface includes a grid, wherein a plurality of lighting units are represented along one axis and wherein time is represented along a second axis; wherein the authoring interface visually represents the selected lighting effect on a region of the grid defined by a lighting unit, start time, and stop time associated with the selected lighting effect.

However, referring to claims 73-74, Bocchicchio teaches analogous art, comprising displaying a grid with lighting units along one axis and time along another axis, and visually representing lighting effect on a region of the grid defined by the lighting unit (Col. 7, line 42 - Col. 8, line 17 of '414).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann or Fleischmann/Reed with the teachings of Bocchicchio. One of ordinary skill in the art would have been motivated to

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combine either of these references because Bocchicchio teaches a flexible and easily configurable lighting system with a template for creating and editing a lighting program (Col. 2, lines 14 - Col. 3, line 8 of '414).

17. Claim 27-29, 57-59, 61, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No 5,945,993 to Fleischmann as applied to the claims above, and further in view of U.S. Pat. No. 5,769,527 to Taylor.

Referring to claims 27-29, 57-59, 61, Fleischmann teaches all of the limitation disclosed above, however, fails to teach the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing a speed at which the lighting program is executed from a programmed speed to a new speed in response to an output of the cue table; wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing a parameter of at least one effect assigned, in the lighting program, to at least one of the plurality of lights from a programmed parameter to a new parameter in response to an output of the cue table; wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing an effect assigned in the lighting program to at least one of the

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plurality of lights from a programmed effect to a new effect in response to an output of the cue table.

However, referring to claims 27-29, 57-59, 61, Taylor teaches analogous art, wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing a speed at which the lighting program is executed from a programmed speed to a new speed in response to an output of the cue table; wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing a parameter of at least one effect assigned, in the lighting program, to at least one of the plurality of lights from a programmed parameter to a new parameter in response to an output of the cue table; wherein the second device is coupled to a cue table that identifies various actions to be taken during execution of the lighting program in response to at least two inputs received at the cue table, and wherein the method further includes an act of, during execution of the lighting program in act (D), changing an effect assigned in the lighting program to at least one of the plurality of lights from a programmed effect to a new effect in response to an output of the cue table (Col. 5, lines 36 – Col. 6, line 17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Fleischmann with the teachings of Taylor. One of ordinary skill in the art would have been motivated to combine these references because

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Taylor teaches lighting systems having intelligent remote lighting fixtures and intelligent distribution networks (Col. 1, lines 26-30) that can coordinate communications between control devices and lamp units having diverse communications protocols, functions, and data formats (Col. 2, lines 5-24).

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (571) 272-3754. The examiner can normally be reached on 9:30am-6:00pm, M-F.

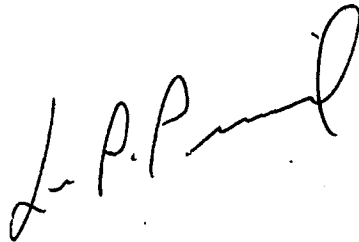
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

Sean P. Shechtman

January 5, 2005



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